

# Psychotherapy with Infants and Young Children

Repairing the Effects  
of Stress and Trauma on Early Attachment



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**THE GUILFORD PRESS**  
New York London

There is always a potential for competitive struggles between the therapist and the parent for the love of the child. The therapist will invariably lose this struggle because the parent always has the option of terminating treatment, and the child will carry the burden of this loss. For this reason, child-parent psychotherapists need to define themselves as providing corrective attachment experiences for the parent and the child through the vehicle of the therapeutic relationship. By remaining focused on the child-parent relationship while equally empathic to the separate individual experiences of the parent and of the child, the therapist offers the necessary emotional safety to examine rigidly constricted, frightening, or disorganized emotional states and to practice more satisfying ways of relating to oneself and others.

The therapeutic relationship is a necessary but not sufficient ingredient in therapeutic change. The relationship with the therapist can be reduced to serving as a temporary emotional shelter at best, unless the parent and the child can use the protected therapeutic space to reflect on burdensome emotional experiences and to learn, practice, and internalize more adaptive ways of coping and relating. When the therapist does not encourage alternative ways of relating to the child and living in the world, the therapeutic relationship can be misconstrued by the parent as giving tacit support for emotional dysregulation and abusive exchanges.

Treatment improvement should be maintained long after the end of treatment. The combined use of diverse clinical modalities defines CPP as a multitheoretical, cross-disciplinary endeavor designed to promote enduring internal and interpersonal change. Interventions informed by social work blend seamlessly with interventions based on developmental psychology, psychoanalytic/attachment theory, trauma, social learning theory, and CBT. The next chapter describes the impact of the stress-trauma continuum of experiences on individual functioning and on the child-parent relationship and provides the rationale for using CPP to treat the psychological sequelae of exposure to danger and threat.

## CHAPTER 2



# Coping with Danger The Stress-Trauma Continuum

Children encounter internal and external dangers as part of everyday life and are stressed by those encounters, making stress intrinsic to development. Although volumes have been written about stress, the term remains imprecisely defined and generally refers to physical or psychological alterations capable of disrupting homeostasis (Cullinan, Herman, Helmreich, & Watson, 1995). Stress may range in intensity from normative strains associated with everyday life to extreme distortions of physiological and emotional balance as the result of catastrophic experiences. This is what we mean by "the stress-trauma continuum." As discussed in Chapter 1, stress becomes trauma when the intensity of frightening events becomes unmanageable to the point of threatening physical and psychological integrity.

Theorists beginning with Freud and continuing with contemporary cognitive psychologists have formulated a cognitive-affective processing model to explain human reactions to stress ranging from normative to extreme (Freud, 1920/1959b, 1926/1959c; Lazarus & Folkman, 1984; Lazarus, 1991). The model identifies a three-step process: (1) recognition of the potential danger; (2) appraisal of the event in order to identify coping strategies; and (3) deploying the coping strategies identified as most useful. This three-step process may take split seconds to implement and is essential to survival.

Although this model of stress identification, appraisal, and coping is considered to be universal, it does not unfold in identical fashion across individuals or at every age. New stresses loom and new skills are acquired in the course of development. Children appraise and cope with risk differently depending on their individual styles and developmental stage. The capacity to appraise external danger matures with age, but it always intersects with children's perception of dangers emerging from within, reflecting fears and conflicts that also shift with development, such as the basic anxieties about losing the parent, not being loved, body damage, and failing to meet the moral standards of the culture. Parents are intimately bound up with young children's sense of what is dangerous and what is safe, and their own stresses and traumas can have a major role in derailing their ability to protect their children. This chapter examines how external dangers affect children's development and their relationships.

### Adaptive and Maladaptive Responses to Danger

Responses to real and perceived danger exist along a continuum that ranges from healthy adaptation to pathological dysregulation, including severe constriction or derailment of the ability to relate to others and to explore and learn from the environment. Responses in the adaptive range involve the child's ability to accurately read cues to danger and to choose effective self-protective strategies that match the level of objective danger. For example, an emotionally healthy toddler may remain in close proximity to the parent in an unfamiliar situation but may insist on being held, may cling to the parent, and may refuse to be put down in the presence of a barking dog or a screaming adult. Maladaptive responses involve inaccurate reading and responding to danger cues. These misconceptions may involve underestimating danger and engaging in risky behaviors (e.g., letting go of the parent's hand and rushing across the street and moving away from the parent in a situation fraught with unfamiliar stimuli) or over-reacting to neutral stimuli as if they involved danger (e.g., clinging anxiously to the parent in familiar and benevolent settings). These two polarities of response—recklessness versus constriction of exploration—are often associated with distortions in secure base behavior and may be indices of disorders of attachment (Lieberman & Zeanah, 1995; Zeanah & Boris, 2000). The example that follows illustrates the coordination of adaptive responses in a child and a parent as they collaborate in devising a strategy to help the child cope with a normative stress.

### Example

Ruth Hall, now a grandmother, recalls the week that she began kindergarten. It was customary in her small town for children to walk to and from school on their own. Although she was looking forward to beginning school and to the more grown-up status this would give her, Ruth was also frightened that she would get lost on her way home from school. Many of the houses in her neighborhood looked alike, and she did not believe that she would be able to find her way back from school. One night, a few days before the first day of kindergarten, she burst into tears at bedtime and told her parents that she couldn't go to school. She cried for several minutes before she finally blurted out, "I'll be lost. I won't be able to get home."

Ruth recalls that her parents comforted her and helped her fall asleep. The next day, her father suggested that they take a walk to the school together. As they walked back home, he pointed out familiar landmarks to help his young daughter remember where to turn. Ruth felt better as her father helped her plot the route home. The next evening they repeated their walk, with her father again pointing out the landmarks along the route. Ruth remembers that by the third evening she was pointing out the landmarks to her father as they walked along. She started kindergarten the next day filled with anticipation and excitement, confident that she would find her way home to her parents at the end of the day.

This example shows that developmental milestones may be stressful no matter how eagerly anticipated. It also illustrates how environmental dangers interact with children's constitutional vulnerabilities and developmentally salient anxieties. Ruth may have had a relative vulnerability in visual-spatial processing that made it difficult for her to make use of visual cues in her environment without extra support. Even so, she had a realistic fear of being lost in her neighborhood because there are actual dangers facing children who navigate the streets on their own. She dreaded encountering hurtful strangers, not seeing her parents again, and being cold and hungry if she could not find her way home. These "real" dangers and vulnerabilities interacted for Ruth with two of the normative anxieties of early childhood, fear of losing the parent and fear of bodily injury. Fear about being "bad" might also have been at play if Ruth worried that her parents would be angry with her if she could not find her way home. In the face of all these external and internal dangers, the young girl became anxious and afraid. She communicated her distress to her parents, first through crying and finally through expressing in words her fear that she would be lost.

Ruth's anxiety did not escalate to a severely stressful response because she trusted her parents and they, in turn, responded supportively by helping her appraise and cope with the danger and with the feelings it aroused. Her father took her perspective and assessed the risk from her point of view. He may or may not have understood her visual-spatial processing vulnerabilities or her internal fears, but he certainly understood how threatening her familiar neighborhood suddenly seemed to her when she was expected, for the first time, to navigate it alone. This empathic attunement was sufficient to mobilize his supportive response.

Beyond helping his daughter appraise the situation, Ruth's father taught her to cope. He was emotionally attuned and physically available; he did not attribute her fears to an innate helplessness but understood that she had some coping abilities to bring to the situation. He worked sensitively with Ruth's coping skills and developed a strategy that helped her succeed. Reciprocally, Ruth was not so aroused by her fear as to be unable to use her father's guidance. She could be comforted and soothed and used the information her father offered her to grapple with her fear and successfully meet the challenge she faced.

Had any of these factors changed, the outcome might have been different for Ruth and the child-parent relationship might have been negatively affected. Ruth could have been a more constitutionally anxious child, too panic-stricken to accept her father's reassurance or process the information he gave her to cope with the new situation. For his part, the father might have been unable to suspend his adult perceptions and accept Ruth's appraisal of the situation as dangerous. In this case, he could have dismissed her fears, telling her that she had lived in the neighborhood all her life and that her worries were groundless. In either case, Ruth would have felt all alone while her fears escalated as the first day of school approached. The experience might have put her at risk of becoming a generally more fearful and insecure child. In the most extreme situation, Ruth might have been overcome by anxiety and actually gotten lost on her way home from school, placing her in real danger and confirming for her the validity of her fears as well as her parents' inability or unwillingness to help.

A different damaging process could occur if Ruth's father had overreacted to his daughter's distress and attributed helplessness to her. Consider the outcome if he had taken Ruth to school each day and picked her up when school was over in spite of the fact that children in the community were accustomed to walking home on their own. This overprotectiveness would have undermined Ruth's belief in her ability to learn and would have given her the message that instead of being

increasingly able to rely on her own resources, she would always need a parent nearby in order to be safe.

When children and parents do not manage as well as Ruth and her father, failures of protection and coping in the face of danger may lead to a range of problems in the parent-child relationship and the child's development. The consequences of stress and trauma for the child involve the intersection of three factors: the nature and severity of the stress, the parent's capacity to help, and the child's ability to rely on the parent for reality testing and protection.

## The Stresses of Early Childhood

There has been little systematic study of the incidence of stress and trauma exposure among infants, toddlers, and preschoolers. This may be due to the fact that as a culture, we tend to idealize early childhood and imagine infants and very young children as safe and carefree. For example, in a literature review of children's exposure to community violence, none of the 12 studies included had data about children under age 6 (Jenkins & Bell, 1997).

The available empirical evidence shows that very young children are routinely exposed to a range of stressors. In one study, a pediatric sample of 305 children between ages 2 and 5 showed that 52.5% of the children had experienced a severe traumatic stressor in their lifetime. Although the older children had a higher incidence of these experiences, 42% of the 2-year-olds had suffered from at least one severe stressor. For the group as a whole, 20.9% experienced the loss of a loved adult; 16% had been hospitalized; 9.9% had been in a motor vehicle accident; 9.5% had had a serious fall; and 7.9% had been burned. There was a strong association between the number of stressors experienced by a child and the likelihood of DSM-IV emotional or behavioral disorders, with 17.4% of the children showing such a disorder (Egger & Angold, 2004). Another study found that children under age 5 are hospitalized and die from drowning and submersion, burning, falls, suffocation, choking, and poisoning more frequently than do children in any other age group (Grossman, 2000).

Young children's exposure to violence is also common. In a sample of children under age 6, 47% percent of the mothers surveyed in the waiting room of the Boston Medical Center pediatric clinic reported that their children had heard gunshots, and 94% of this subset of mothers reported more than one such episode. In addition, 10% of the children had witnessed a knifing or a shooting, and nearly 20% had witnessed

an episode of hitting, kicking, or shoving between adults (Taylor, Zuckerman, Harik, & Groves, 1994). Children under age 5 are more likely than older children to be present in homes in which domestic violence occurs (Fantuzzo, Brouch, Beriama, & Atkins, 1997). Young children are also disproportionately the direct victims of violence. During the first year of life, more children are physically abused and die as the result of the abuse than at any other 1-year period (Zeanah & Scheeringa, 1997). Extrapolating from data from 40 states reported to the National Center on Child Abuse and Neglect in 1995, the National Research Council and Institute of Medicine (2000) found that over one-third of victims of substantiated reports to child protection agencies were under age 5, and 77% of the children killed were under age 3. Some groups of children are at greater risk than others. In one nationally representative sample of children ages 2–9 years, children in single-parent and stepfamily households, ethnic minorities, and children of lower socioeconomic status had greater lifetime exposure to most forms of intentional victimization, including physical abuse, sexual abuse, and witnessing family violence (Turner, Finkelhor, & Ormrod, 2006). Untold numbers of children are exposed to war and to the myriad hardships and traumas intrinsic to it: death of parents, rape and sexual assault, displacement, and starvation. All these events, whether of human or nonhuman agency, whether intended or not, profoundly change children and their relationships.

Children's responses to particular stressors are determined by a variety of factors, including environmental, experiential, and genetic characteristics (Pynoos, Steinberg, & Piacentini, 1999). Children's genetic vulnerabilities, past experiences, present coping resources (including, especially for young children, the resources of parents and caregivers), and secondary stressors all interact to shape the child's developmental pathway after trauma. Early trauma may magnify genetic vulnerabilities, leading to a downward spiral of dysfunction (National Research Council & Institute of Medicine, 2000). Caregiving relationships have a critical role in mediating children's responses to traumatic events. One study of children under age 4 who experienced severe burns demonstrated a direct path linking children's pain as a stressor to parental distress about the child's pain, which was in turn linked to acute stress symptoms in the children (Shalev, Peri, Canetti, & Schreiber, 1966). In another study, maternal psychological functioning and family cohesion predicted the longitudinal adjustment of Israeli preschoolers whose homes were damaged by SCUD missiles during the Gulf War (Laor et al., 2001).

Detrimental effects are not necessarily irreversible. The presence in the child's life of protective factors, particularly in the form of a close emotional relationship with a supportive adult, can ameliorate the impact of adversity and promote a positive developmental outcome

(Lynch & Cicchetti, 1998). Early relationship-focused interventions such as CPP can also promote healthy development outcome by enhancing the child's primary attachment relationships and enabling the adult to be more supportive of the child, thus shifting the dynamic interplay between constitutional strength or vulnerability and environmental stress (Lieberman et al., in press). There is emerging evidence that interventions that strengthen children's primary caregiving relationships also improve their physiological reactivity. The abnormally high cortisol level of infants and toddlers in foster care declined to the normal range after their foster parents took part in a brief intervention designed to help them provide more individually tailored nurturing care (Dozier et al., 2006). The promise that relationship-based interventions may succeed in restoring greater physiological balance has important clinical implications because of the dramatic and enduring impact of traumatic stress on brain development.

## The Normal Stress Response

Newborn babies secrete high levels of stress hormones, including cortisol, in response to such noxious stimulation as blood sampling and circumcision, and their cortisol elevations are positively associated with crying. Healthy newborns also have the capacity to self-regulate by withdrawing into quiescent states that are associated with lower levels of stress hormone secretion. The normative pattern in healthy babies is to habituate to stress so that they cry less over time and secrete less stress hormones in response to the same levels of stimulation. Less healthy babies (but still well enough to be cared for in normal nurseries) are less able to regulate their hormone levels and habituate less readily to stress. In these infants, crying is not an accurate index of their stress levels because they continue to have high cortisol levels even after they have been soothed. These findings indicate that individual differences are evident from the days immediately after birth. It is possible that the less healthy babies will remain more physiologically vulnerable to stress as they develop, and that less intense stimulation may trigger a full-blown stress response (Gunnar, 1992).

Healthy newborns' ability to habituate to stress becomes more sophisticated as they develop. By the time infants are 3 months old, their diurnal patterns of cortisol production are related to the sleep-wake cycle, with the highest cortisol level occurring in the morning and declining throughout the day (Bailey & Heitkemper, 1991; Price, Close, & Fielding, 1983; Schmidt-Reinwald et al., 1999; White, Gunnar, Larson, Donzella, & Barr, 2000). The level of cortisol is controlled by

a system of negative feedback loops, with high cortisol levels triggering a shutdown in production (Jacobson & Sopolsky, 1991). Older infants secrete stress hormones on separation from their caregivers or in novel situations, but even temperamentally wary babies are able to habituate quickly to novel situations between 2 and 6 months of age. As this developmental trajectory moves into the school years, children who deploy moderate cortisol levels in response to stress tend to be more competent with peers, more involved in schoolwork, more cooperative, and more realistic in their appraisals of a stressful situation. Elevations in cortisol do not automatically signal stress or anxiety but may index children's active attempts to cope both with the stressor and with their emotional responses to it (Gunnar, 1992; McEwen, 1999). Successful coping with nonoverwhelming stress and supportive care from parents help children be less reactive to later stressors (Gunnar & Quevedo, 2007).

### The Body's Response to Extreme Stress and Trauma

Cortisol and other hormones play critical roles in the metabolic and anti-inflammatory responses of healthy children and adults (Tortora & Grabowski, 1993). The body responds to highly stressful stimuli with a dynamic process that involves multiple neurotransmitter systems, including the catecholamine, serotonin, and dopamine systems as well as multiple neuroendocrine axes, including the hypothalamic-pituitary-adrenal (HPA) axis which produces cortisol (Lipschitz, Rasmussen, & Southwick, 1998; McEwen, 1999). Trauma-associated dysregulations have been described in catecholamines, the neurotransmitters that regulate the sympathetic nervous system, as well as in the serotonin system and the metabolism of endogenous opiates, two systems involved in the regulation and modulation of mood (Southwick, Yehuda, & Morgan, 1995). The HPA axis is the most thoroughly studied stress-response system, and it is central both to fear conditioning and to the production of stress hormones in response to fear (Yehuda, Giller, Levengood, Southwick, & Siever, 1995). HPA axis activity over time is complex and variable, with stressors that are uncontrollable, traumatic, and threatening to one's physical integrity eliciting the highest levels of activity (Miller, Chen, & Zhou, 2007).

In the event of a traumatic event, responses to sights, sounds, olfactory, tactile, and kinetic stimuli join with a rapidly accelerating cascade of feelings from within to overwhelm the traumatized person. The external sensory information is filtered by the thalamus and then directed along two separate pathways. One path sends the sensory input to the amygdala, a bilateral structure located in the limbic brain whose

function is to assess the aversive emotional significance of the sensory stimulus and set in motion the fear response. Simultaneously, the sensory information is transmitted along a slower path to the sensory prefrontal cortex, the seat of analysis, planning, and executive function (LeDoux, 1996, 1998). Survival depends on the rapid physiological response to danger that is made possible by the shorter pathway to the amygdala.

The body mobilizes for self-protection when confronting a situation assessed as dangerous from feedback provided by the amygdala and related structures. The sympathetic nervous system discharges as a unit, redirecting the blood supply into active muscle groups and away from functions that are not involved in responding to risk. Simultaneously, there is mobilization of blood glucose to increase energy supply to muscles, acceleration of heart rate and blood pressure to allow for more blood supply to vital organs, and dilation of pupils so that more light enters the eye (Southwick et al., 1995). The brain perceives these physiological changes as part of the global danger situation. In response to both the external and internal stimuli, the amygdala plays a major role in activating the HPA axis via projections to the hypothalamus, which controls adrenocorticotrophic hormone (ACTH) release from the pituitary. Once activated, the adrenal cortex releases high levels of corticosteroids, including cortisol (LeDoux, 1995).

Stimulus evaluation is critical not only to the initiation of the stress response but also to the following stages. Continued interpretation of the event as dangerous results in the continued activation of the sympathetic and HPA systems (LeDoux, 1995). This process interferes with the negative feedback loop that, under conditions of mild or moderate stress, halts the production of cortisol. Prolonged and severe stress leads to chronic activation if cortisol and other stress hormones are secreted for extended periods. In preclinical animal models, the result is cell death and atrophy of specific parts of the brain. One recent study suggests that cell death in the human brain may also be linked to prolonged exposure to cortisol. Baseline cortisol levels and PTSD symptoms predicted decreased hippocampus volume over a 12- to 18-month interval in a group of 7-13-year-olds, with higher levels of cortisol associated with greater decreases in volume (Carrión, Weems, & Reiss, 2007).

Although the nervous system may habituate even to predictably high levels of stress over time, such habituation does not occur if stresses are severe, unpredictable, uncontrollable, or novel. In these conditions, high levels of stress hormones will continue to be secreted even in response to stimuli that are not inherently traumatic. It is as if the switch that controls the production of stress hormones is recalibrated and reset to a position where less frightening stimuli are sufficient to activate it (Yehuda, Giller, Southwick, Lowy, & Mason, 1991).



For decades, the stress response has been described as a fight-or-flight mechanism that allows the organism to fend off the threat or to escape it, depending on which of these two strategies is appraised as most effective (Cannon, 1932). This binary model is currently considered too narrow to encompass the sex differences found in strategies for coping with danger (Taylor et al., 2000, 2006). Although both males and females display the core neuroendocrine stress response described earlier (Allen, Stoney, Owens, & Matthews, 1993), oxytocin and progesterone are involved as well. Oxytocin is a pituitary hormone released by both men and women in response to a broad variety of stressors and found to enhance relaxation, decrease fearfulness, and lower sympathetic activity, but it is related to different coping behaviors in men and women (Uvnas-Moberg, 1997). Oxytocin effects may be more pronounced in women than in men for several reasons. First, females appear to release more oxytocin under stress than males (Jezova, Jurankova, Mosnarova, Kriska, & Skultetyova, 1996). Second, androgens appear to inhibit oxytocin release under conditions of stress (Jezova et al., 1996). Third, oxytocin effects are modulated by estrogen (McCarthy, 1995). The hormone progesterone, also released in times of stress and highly correlated with stress-related cortisone production, is likewise associated with the arousal and affiliation motives, although the sex differences noted in oxytocin release are not observed (Wirth & Schultheiss, 2006).

Oxytocin is also implicated in maternal caregiving behaviors in animal models. High levels of licking and grooming behavior in rats during lactation are associated with higher oxytocin receptor levels in the brain (Francis, Champagne, & Meaney, 2000), and higher levels of maternal care are associated with lower levels of stress reactivity in adult offspring (Leckman, Feldman, Swain, & Mayes, 2007; Weaver et al., 2004). These studies are based on the behavior of animal mothers in the interval immediately following the birth of young. Early caregiving behaviors, associated with higher levels of oxytocin, appear to have enduring consequences for anxiety regulation and stress responsiveness in the offspring (Leckman et al., 2007).

Females are more involved than males in the immediate protection of offspring, and gender differences observed in oxytocin production may be explained by the demands of caregiving (Taylor et al., 2000, 2006). Pregnancy, nursing, and care of young render females particularly vulnerable to attack. Given the female's investment in the protection of the young, neither a fight response that could end in her incapacitation or death nor a flight response that could entail the abandonment of vulnerable offspring would be adaptive. Females may instead adopt behavioral patterns for coping with stress that involve protecting offspring and affiliation, particularly with other females. These behaviors

are labeled "tend or befriend" by Taylor and colleagues as a counterbalance to the fight-or-flight alternatives. One interpretation of the studies that find that animal dams with higher oxytocin levels engage in higher levels of licking and grooming behavior is that these dams are managing the stress of birth and lactation by tending to their young. These tending behaviors may be stress relieving for the dams as well as having a lasting impact on their offspring's stress responsiveness.

If the model proposed by Taylor and her colleagues holds for humans as well as animals—a hypothesis supported by some human behavioral studies—women's urge to tend to their children in times of overwhelming stress may work to the advantage of relationship-based treatments such as CPP. An important element of CPP is the co-construction of a trauma narrative by the caregiver (most often the mother) and her young child. Recalling the details that surrounded a traumatic event can be extraordinarily anxiety provoking, giving rise to an attenuated form of the body's stress response to the original event (Foa, Rothbaum, & Molnar, 1995). Women whose tend-or-befriend stress responses are activated in response to the co-creation of a trauma narrative with their children may be more likely, according to this hypothesis, to nurture and protect their children, and these behaviors may strengthen the children's trust in their mother's capacity to provide protection.

### Central Nervous System Dysregulation and Structural Change

The human stress response is associated with lasting changes in brain structure, neurotransmitter systems, and the HPA axis, although some of these changes seem to differ in children and adults. The empirical evidence is somewhat mixed, but most studies of adult trauma survivors (including one study of Holocaust survivors with PTSD but without the substance abuse history that is so frequently comorbid with PTSD) point to hyporesponsiveness in the HPA axis with low levels of cortisol (Yehuda et al., 1995). Traumatized children, on the other hand, show higher levels of cortisol than matched nontraumatized controls (De Bellis et al., 1999a; Carrión, 2006). This difference in the child and adult literature has led to the hypothesis that the low cortisol levels in adults reflect a long-term adaptation to trauma because the body cannot sustain the hypersecretion of cortisol that is triggered in childhood by extreme stress and trauma (De Bellis, Baum, et al., 1999; Gunnar & Vazquez, 2001).

There is also empirical evidence of changes in brain structure following trauma, although the findings are inconsistent. Some studies show that maltreated children have smaller frontal lobe volumes

(De Bellis, Keshavan, et al., 1999). Other studies have shown larger frontal cortex volume associated with increased gray matter in the left frontal lobe that attenuates the normal frontal cortex asymmetry (Carrión, 2006; Carrión et al., 2001). In both cases, however, the changes are associated with earlier age of maltreatment, longer duration of maltreatment, and greater severity of PTSD symptoms. Maltreated children also show pronounced asymmetry in left-right volumes of the superior temporal gyrus, a brain center implicated in the cognitive processes of language production (De Bellis et al., 2002). Most studies have not found hippocampal atrophy among maltreated children (De Bellis, Hall, Boring, Frustaci, & Moritz, 2001; Carrión et al., 2001), although this atrophy has been observed in several adult samples, including combat veterans with PTSD (Bremner et al., 1997; Gurvits et al., 1996), PTSD sufferers who experienced childhood physical maltreatment (Bremner et al., 1997), and women with a history of sexual abuse as children (Stein, Koverola, Hanna, Torchia, & McClart, 1997). As noted earlier, hippocampal atrophy has also been observed in a single longitudinal sample of children ages 7–13 years (Carrión et al., 2007).

The evidence of structural brain differences associated with trauma is provocative, but it requires further study with larger sample sizes and longitudinal designs to help explain whether developmental processes or other factors explain the discrepancies between adult and child findings and whether there are accompanying functional changes that appear with maturation (De Bellis, Hooper, & Sapia, 2005). From the current literature, it is clear that the changes in brain structure observed among maltreated children with PTSD are associated with limitations in cognitive functioning that affect children's readiness to learn (Green, Voeller, Gaines, & Kubie, 1991). Maltreated children with PTSD show more deficits in attention and abstract reasoning and executive function than did a group of matched nonmaltreated controls, and their IQ is positively correlated with total brain volume and negatively correlated with duration of maltreatment (Beers & De Bellis, 2002; De Bellis, Keshavan, et al., 1999). Childhood exposure to domestic violence was associated with an 8-point IQ loss among monozygotic and dizygotic twins in a large study that controlled for genetic factors and direct maltreatment but did not measure brain volume (Koenen, Moffit, Caspi, Taylor, & Purcell, 2003). In a sample of 7–14-year-olds, verbal IQ was negatively correlated with the number of traumas experienced, the number of reexperiencing symptoms reported, and the level of functional impairment from symptoms (Saltzman, Weems, & Carrión, 2005). Traumatized adults with stress hormone dysregulation also show deficits in verbal memory and intelligence (Bremner, 1993, 1997).

One reason for the frequently observed decrements in intelligence may be that individuals who have suffered traumatic life experiences tend to attend to cues that may, in their minds, be tied to risk and danger. Findings that lower IQ is linked to higher numbers of reexperiencing symptoms support that hypothesis. In laboratory conditions, traumatized adults and children attended selectively to negative emotions and negative situations (Armony, Corbo, Clément, & Brunet, 2005; McPherson, Newton, Ackerman, Oglesby, & Dykman, 1997; Pollock, Cicchetti, Klorman, & Brumaghim, 1997). Although preferential attention to negative stimuli might be adaptive in chronically dangerous environments, selective attention to danger cues is likely to interfere with the traumatized person's ability to process emotionally neutral information in a learning situation.

### Changes in Behavior and Functioning after Trauma

Stresses range from mild stimuli that may enhance performance to daily hassles and hardships that may dampen performance to the overwhelming stress of trauma that derails coping responses. Traumatic stress responses, in turn, are associated with a range of functional changes that depend on whether the trauma was an isolated incident or a pattern of chronic maltreatment or violence exposure. Isolated traumatic events are more likely to produce discrete conditioned biological and behavioral responses to trauma reminders, sometimes reinforcing avoidant strategies that render the traumatized individual fearful and helpless when confronted with traumatic reminders that cannot be avoided (Bremner, 2005; Foa, Steketee, & Olasov-Rothbaum, 1989; Horowitz, 1976). In contrast, chronic or complex trauma interferes more profoundly with the development of children's brains and minds. The factors most consistently associated with later personality problems, including dissociation, are the child's early age when the trauma occurred, trauma chronicity, and the perpetrator having a close emotional relationship with the child (Bremner, 2005; Herman, 1992a, 1992b; van der Kolk, 2005). When parents are the source of danger, young children are unable to turn to them for help and become compromised in their ability to process and make sense of what is happening. As a result, subsequent traumatic reminders evoke globally helpless and fearful states rather than discrete conditioned responses. Children respond to these situations and to the accompanying emotional states as if the original trauma were happening again, resulting in the generalization of the traumatic response to a broadening range of stimuli that the child is unable to process and



integrate. This failure of emotional and cognitive integration is associated with dysfunction in multiple domains of functioning, including attachment security, affective and behavioral regulation, self-concept, and cognition (Cook, Blaustein, Spinazzola, & van der Kolk, 2003). Some scholars believe that a new diagnostic category of developmental trauma disorder is necessary to systematize the conceptualization of these global patterns of dysregulation because of their potentially devastating impact on development (van der Kolk, 2005). This proposed category is described in greater detail in Chapter 4.

Interpersonal trauma is especially destructive to children's attachment relationships. Maltreated children have higher rates of insecure and disorganized attachment and are less able to rely on their caregivers for emotional and behavioral regulation (Cicchetti & Lynch, 1995; Lyons-Ruth & Jacobovitz, 1999; Schore, 1994, 2001). Relationship problems are also associated with dysregulations in children's stress hormone systems (Kaufman et al., 1997). When parents perpetrate the traumatic events, children face a conflict without solution. Their sensory systems are overloaded by terrifyingly intense visual, auditory, kinetic, tactile, and olfactory stimuli that overwhelm their capacity to process and make sense of them, but they cannot turn to the parent for help because that source of protection is simultaneously the agent of terror. This "unsolvable dilemma" (Main & Hesse, 1990) has a profound impact on children's template for close emotional relationships. It is possible that the physiological changes associated with repeated exposure to interpersonal violence may hamper the development of rich networks of connections in the orbital prefrontal cortex, an area of the brain implicated in empathy, concern for others, and the use of language to solve relationship problems (Schore, 1994, 2001). If this is the case, the intergenerational transmission of trauma and disorganized attachment may well happen at the neural level, as children traumatized in their attachment relationships grow into adults whose brain structure is ill-equipped to support an empathic response to their children.

### Failures of Protection: Relationship Perturbation, Disturbance, and Disorder

Just as stress ranges along a continuum from mild to traumatic, there is a range of severity in the relationship problems that result from these stresses. Anders (1989) proposed three categories of parent-child relationship problems on the basis of their duration, pervasiveness, and degree of interference with the child's healthy functioning: *Perturbations* are at the milder end of the continuum and are defined as transient

disruptions in one or two areas of functioning that arise in the context of satisfactory overall adjustment while parent and child adjust to new developmental challenges and environmental stresses. *Disturbances* are patterns of inappropriate or insensitive regulation in the interaction between parent and child that are not rigidly fixed although the adaptive qualities of the relationships are beginning to be superseded by their problematic features. *Disorders*, at the more severe end of the continuum, are long-lasting patterns of inappropriate or insensitive regulation in interaction, pervasive across several domains of functioning, and disruptive to the developmental milestones for the child, the parent, or both. The boundaries between the categories are permeable. Duration is used as a formal classification criterion, with perturbations generally lasting less than a month, disturbances lasting between 1 and 3 months, and disorders being of longer duration. This schema about relative duration needs further empirical support, however. For example, we have found that perturbations and disturbances have often been of longer duration by the time the parents seek consultation.

The classification of relationship problems into perturbations, disturbances, and disorders is purely descriptive and does not assume a particular etiology for any of the categories. A broad range of causative factors, including environmental stresses and trauma, constitutional vulnerabilities in the child and/or parent, poor temperamental fit, and psychological conflicts can underlie relationship problems. These causative factors operate in a transactional pattern with one another, making it difficult to predict from a single factor alone whether a relationship disturbance will follow or how severe it will be. The sections that follow give examples of perturbations, disturbances, and disorders and demonstrate that even severe environmental stresses do not necessarily lead to relationship disorders. Chapter 5 describes how CPP is used to treat perturbations, and Chapter 6 focuses on the treatment of disturbances and disorders.

### Perturbations

The case of Ruth Hall, described at the beginning of this chapter, is typical of the transient difficulties that characterize perturbations in relationships that are generally supportive and adaptive. As the time for young Ruth to begin kindergarten approached, her anxiety manifested itself in a fear that if she went to school she would be lost and unable to get home to her parents again. This fear had some basis in reality given the similarity of the homes in her neighborhood and the custom in the community that children walk to and from school alone. At first Ruth kept her fears to herself, but ultimately she shared them with her

parents, first in an emotionally unmodulated way and then, with their help, more calmly and in words. Ruth's father was able to hear her concerns, to accept them as valid, and to respond to her in a sensitive way to help Ruth build further capacities that she could use to cope while working from existing strengths. Ruth's attachment to her parents was sufficiently secure that, after a relatively short period of distress, she was able to talk openly with them about her fears. She expected to be protected from the danger that she perceived and to be helped with her fears. Her parents did not disappoint her. Ruth's anxiety did not move beyond her fears around starting school. It resolved in less than a week following her parents' intervention, leaving her feeling more competent than before because she had been able, with their help, to cope with her worries and take the next step in her development. This example illustrates the potential for growth inherent in conflict in the presence of protective factors.

### Disturbances

Relationship disturbances have a more pervasive and long-lasting impact because they put the relationship at risk for entrenched dysregulations. Although relationship disturbances are by definition confined to one domain of functioning and are not generally of long duration, they can easily become chronic and expand to additional domains in a self-reinforcing cycle that may escalate to become a disorder.

#### *Example*

The mother of Katya, 4 years, 6 months old, sought intervention for her daughter because she was withdrawn and sad at home. Katya's preschool teacher reported that the child was friendly with adults, was generally popular with her classmates, and had several special friends. Academically, she was ahead of her peers and well prepared for kindergarten. The teacher believed that Katya was proud of her ability to do well in school and that this gave her a strong sense of competence. At home, however, Katya lived in the shadow of her older 7-year-old sister, whose emotional problems seemed to take up all of the psychological energy in the family. Although Katya turned to her mother for affection, the mother's efforts to encourage her to talk about her feelings were unsuccessful.

The most salient environmental stress reported by the mother was that Katya and her sister had witnessed a single incident of violence in which their father hit their mother hard enough to break her jaw and several other bones in her face. Katya was 3 years, 9 months old at the

time of the assault. Her father was arrested at the scene, her mother was taken away in an ambulance, and Katya and her sister were placed in emergency foster care for several weeks while their mother was hospitalized for surgery to repair her broken bones.

Following this incident, Katya's sister had a full-blown traumatic stress response, with intrusive thoughts, avoidance of reminders, irritability, anger, difficulty sleeping, and academic failure. Katya, on the other hand, had no symptoms other than her sad withdrawal. She was solicitous of her mother but not seriously overprotective. She quietly accepted her sister's outbursts and pursued her daily activities as if nothing had happened. Her mother tried to draw Katya out but the child said little, although she was affectionate, helpful, and cooperative at home.

Katya was doing well in many realms of her life in spite of having witnessed a severe assault that left her mother seriously injured. She was ready for school, had friends, and had adapted reasonably well at home. However, her affect was seriously overregulated and she was not able to accept her mother's help to become more emotionally open and expressive. Katya's individual emotional constriction had at its source a dysregulation in her relationship with her mother. She did not believe that her mother could take care of herself or her daughters, nor did she believe that her mother could help her contain her feelings. Her withdrawal and blunted expressiveness protected her from being overwhelmed, but it was a brittle protection. Katya and her mother needed intervention to restore Katya's trust that her mother could protect her from danger (including the danger of her own angry, fearful feelings) and to restore her mother to her rightful place as a benevolent authority figure in her daughter's life.

At the time Katya and her mother came for treatment, affect regulation was the only domain in which Katya's functioning was seriously affected. She ate well and slept well. Her cognitive development appeared to be intact, and her intelligence and capacity to take pride in her accomplishments in preschool were significant strengths, as was Katya's general ability to form satisfying relationships. She had friendships among her peers, good relationships with her teachers, and loving, cooperative relationships at home. Katya's constitutional strengths and the fact that her life was not filled with other overwhelming stressors may have protected her from the full force of the frightening assault she had witnessed. Nevertheless, she was emotionally blunted, trusting neither her mother nor herself to contain her strong negative emotions. Unless Katya and her mother can change this pattern, it is likely that this constriction in the capacity for emotional intimacy will affect other domains of functioning in their relationship, placing Katya's emotional health at increased risk.

## Disorders

Relationship disorders are entrenched, long-standing patterns of insensitivity and dysregulation in the parent-child relationship that affect many aspects of the dyad's functioning. The case of Luis and his family illustrates how a single traumatic event can derail every domain of a young child's functioning and create a parent-child relationship disorder when the reverberations of the trauma and its related adversities are not counterbalanced by strong protective influences.

### *Example*

Luis was 2 years, 6 months old when he witnessed the murder of his aunt, who was his mother's younger sister. He was referred for treatment because of his sudden and explosive outbursts of anger and his aggression toward his mother, child care providers, and peers. By the time of referral 6 months after the murder, he had been expelled from two child care centers, compromising his mother's ability to work. His parents feared that he would become a criminal unless his aggression could be brought under control.

The assessment revealed that the circumstances of the murder were overwhelming for Luis and his mother, and the events that followed compounded the initial impact of the event. He had spent the night before the murder in his aunt and uncle's home. The following morning, his aunt and uncle had brought Luis back to his parents' home. Luis was in his uncle's arms outside the door to his parents' apartment when drive-by shooters, believed to be aiming at the uncle, shot Luis's aunt instead. Luis's mother witnessed the shooting from an upstairs window. She called for an ambulance and then helped Luis's uncle pull the aunt into the living room so that all of them would be sheltered in the event that the attackers came back. Luis was forgotten, cowering in the corner crying, while his mother and uncle, screaming in terror and grief, tried unsuccessfully to stop the bleeding from the bullet wound. Luis watched his mother leave in the ambulance with his aunt and uncle and stayed with a neighbor until his father could leave work and come for him. Luis's parents talked by telephone and decided that it would be better for Luis not to return to the apartment, which had been the scene of so much terror for him. Instead, the father traveled with Luis to Mexico and stayed with his own parents for 3 weeks. During that time, Luis talked to his mother twice on the telephone. Both times, she was crying and unable to respond in a comforting way to Luis's cries that he wanted to come home.

After Luis and his father returned home, Luis refused to leave his mother's side. He demanded to sleep with her and could not leave her alone long enough for her to take a shower. He was expelled from two child care centers because of his separation distress and resulting outbursts of anger and aggression, and the mother was forced to quit her job to take care of him. Their relationship became more frayed each day as Luis both clung to her and acted out angrily. He was in a furious frenzy against the living room in which he had watched his beloved aunt bleed to death and where he had been unable to turn to his mother for comfort as she was absorbed in her efforts to save her sister and cope with her own responses. He slashed the sofa and chair with a knife, scribbled on the walls with a red marker, and came close to breaking the screen of the family's television set. When he was not in a destructive rage, Luis seemed terrified. He could not be alone in the dark and refused to be alone in the living room even for a few minutes during daylight.

The conditions of the neighborhood exacerbated the child's pervasive sense of impending internal and external danger. Luis lived with his father and mother in a public housing project in a large city. The area was so plagued with gang violence that it was unsafe for children to play outdoors after school. There was gunfire from warring gang members nearly every night, and the gunshots made Luis jumpy and agitated. He spent the Fourth of July under the kitchen table, crying and screaming for his mother to stay with him. She came to help him in response to his calls, but he pushed her away and turned his back to her when she tried to hold and comfort him, only to scream for her again when she left his side.

Prior to the murder, the family lived in precarious economic circumstances but was doing well emotionally. Both of Luis's parents worked but they earned low wages and could not accumulate enough money to move to a safer neighborhood. Luis was cared for in a small child care center while his parents worked, and he was well adjusted there. His motor and language development were on track. He got along well with the other children and had developed a preference for one teacher over the others. He enjoyed being at the center but was always glad to see his parents when they came to pick him up at the end of the day.

By the time Luis was referred for treatment 6 months after his aunt's death, the parents seemed to have forgotten that the murder had marked the beginning of the child's problems because they were so distressed over his destructive behavior and his alternating clinging dependence and angry rejection of help. His mother said, "It's like the devil got into him. First I lose my sister, and now my child is destroying my home. He won't even let me go to the bathroom without him, but when I try to help him he pushes me away. I think he's trying to destroy me, too."

Luis was not a maltreated child. On the contrary, his parents were both attuned to his emotional states and responsive to his bids, although after the murder they had become unable to make sense of his behavior. The family did, however, live in a stressful environment marked by poverty and community violence, and both Luis and his parents were made more vulnerable by these stresses. The parents were acutely aware of the dangers surrounding them and did their utmost to protect their child. Luis was forbidden to play outdoors because of the violence, and occasionally, when gang warfare was at its height, Luis's parents put him to bed in the bathtub, padding it with sleeping bags and blankets, so that he would be shielded from the possibility of bullets penetrating his bedroom. Before the murder, Luis was developing in an environment that was dangerous, but he was aware of his parents' efforts to protect him and this awareness may have been a protective factor for him.

These conditions were dramatically altered after the murder. Luis was overwhelmed and traumatized by the shooting and its immediate aftermath. His fears were probably intensified because the traumatic event he witnessed made his developmentally expectable internal fears of losing the mother's physical presence and love become terrifyingly real. Although his mother was physically present in the aftermath of the shooting, she could not offer Luis even the most elementary emotional support because she was completely occupied with her own terror and with her ultimately unsuccessful attempts to save her sister's life. The terrifying sights of shooting, injury, and bleeding intensified Luis's developmental fear of bodily injury. Internal and external dangers combined to overwhelm Luis's ability to cope.

Luis endured further threats to his development beyond the traumatic moment. His separation from his mother for 3 weeks following the event constituted a severe secondary adversity that confirmed the fear of losing the mother and her love and rendered him frightened, clingy, and angry when he returned. Moreover, when he came back home, Luis could not escape the memories of the original trauma because his living room was a permanent traumatic reminder, as were the ongoing sounds of gunshots and fireworks in his neighborhood. The secondary adversity of separation from his mother had made Luis more vulnerable and made his recovery from the original trauma more difficult. The continuing trauma reminders in his environment made his recovery without intensive intervention virtually impossible. Luis's behavior swung wildly between terror and aggression because aggression was most likely the only mechanism he could muster to ward off the terror. Throughout all of this, from the traumatic moment itself through the separation from his mother and the difficult weeks after his return, Luis's mother was not able to help him cope with his overwhelming feelings. She did not meet

his expectation that she would help him modulate feelings too strong for him to manage on his own. This led to the nascent expectation that she would never be able to protect him and to his rage at her for this fundamental developmental failure.

Luis's mother, for her part, was suffering from her own trauma response, complicated by grief at the death of her sister. She had also experienced the shooting as an overwhelming event. She had been helpless to protect her sister and was reminded of her terror every time she opened the front door. The noises of shooting in the neighborhood also served as traumatic reminders for her, rearousing her and maintaining her in a dysregulated state. More important for her relationship with Luis, his rejection of her at times when he needed help reawakened the feelings of helplessness she had experienced while she tried in vain to aid her dying sister. She defensively turned the helplessness into active anger at Luis, attributing to him a motivation to reject and hurt her.

Luis and his mother were both caught in the grip of individual responses to the overwhelming stress that they had both experienced. The tend-and-befriend response (Taylor et al., 2000) would predict that caring for her child might have helped to calm her in the period immediately after the shooting. However, their 3-week separation after the murder, intended to allay Luis's fears, might have been as difficult for his mother as it was for him: The child's absence deprived her of an opportunity to calm and reregulate herself by tending to the needs of her son, who was in turn deprived of the opportunity to be calmed by her. On his return, mother and child became increasingly locked in misunderstandings based in fear. They had been unable to process and integrate the overwhelming sensory stimuli and feelings that they experienced at the time of the shooting. After the aunt's death, as they continued to be aroused and traumatized in their home and in one another's company, they were unable to integrate their interactions into working models of one another that would sustain their relationship. The mother began to make globally negative attributions to Luis, believing that "the Devil was in him" and that he was trying to destroy her. What had been a relationship marked by sensitive attunement became one marked by mutual misunderstanding and distrust, with virtually every aspect of Luis's development derailed.

### The Power of Context in Shaping Individual Responses to Trauma

Both Luis and Katya had endured traumatic events. The impact of these events on each child's individual development and relationships was, however, dramatically different. Luis lived in poverty and was surrounded by danger even before the trauma; Katya did not. The fact

that Katya internalized her distress may have made it easier for her mother to cope with her child's worrisome behavior. Luis's rejecting and destructive behavior fed his mother's negative attributions to him, while Katya's mother responded to her daughter's withdrawal and stoicism with attempts to understand and comfort. Finally, although both Luis's and Katya's mothers also had their own trauma responses to deal with, Luis's mother's response was complicated by the fact that she was also grieving her sister's death. All of these factors may help explain why Katya's relationship with her mother was disturbed while Luis's relationship became frankly disordered. Twenty-five years ago, Sameroff (1983) highlighted the pivotal importance of the advance of developmental research on the discovery and exploration of context. The power of this observation has been amplified in the ensuing decades. The importance of context is not confined to developmental research but applies to clinical practice as well, perhaps most graphically in the understanding and treatment of the sequelae of trauma.

### When the Protective Shield Fails: Understanding Why

Parental caregiving behaviors have evolved as a mechanism to protect the survival of the young, but parents cannot always protect their children in spite of their biological propensities and deeply felt desire to do so. The reasons are multiple. Sometimes the parents' most conscientious efforts may not be sufficient to shield their children from the impact of catastrophe. For other parents, psychological obstacles interfere with their capacity to protect. In most situations, the intricate transactions among external stresses, parental psychological makeup, and young children's constitutional styles and developmental stages create conditions that may protect or damage children's emotional health. In the following sections, we discuss four specific manifestations of parental failure to protect. Understanding the motives underlying parental behavior is often necessary to promote greater parental capacity to provide safety. The following clinical examples illustrate the frequent gap between the conscious wish to care for the child and unconscious parental motivations.

### When Parents are Overwhelmed by Catastrophic Events

Helplessness and terror are the inevitable responses to trauma because traumatic events are unpredictable, uncontrollable, and terrifying. Parents can be overtaken by these events as easily as children, often with the result that both members of the dyad suffer harm from dangers

that the parent could not anticipate. Once the traumatic event occurs, the unfolding of secondary traumas creates escalating distress in the parent-child relationship (Pynoos, 1997). Their expectations of one another change as the result of the trauma, and they may perceive one another not only as traumatic reminders but also as sources of danger and victimization.

The case of Luis and his family, described earlier, illustrates this situation. Conscientious and protective as they were, Luis's parents could not predict the drive-by shooting that ended in Luis's aunt's murder. Their best efforts to respond sensitively to Luis and to protect him from returning too soon to the scene of his terror actually had the opposite effect. Almost overnight, a parent-child relationship that had been developmentally enhancing for Luis and a source of pleasure and pride for his mother was undermined in every domain of functioning. The sequelae of trauma, and in particular the insidious nature of traumatic reminders, kept Luis and his family frightened and on edge, making their recovery from the original trauma problematic. This chain of events originated in an overwhelming catastrophe that the parents could not prevent, rather than in parental conflict or psychopathology that undermined their protective function.

### Unanticipated Consequences of Conscious Wishes to Protect

In some situations, loving parents may unconsciously expose their children to danger in the process of ostensibly protecting them from a different risk that is given disproportionate importance due to the parents' internal conflicts. These parents are single-minded in their effort to prevent a repetition in their child's life of painful circumstances in their own childhood. The overwhelming psychological salience of unresolved childhood conflicts blinds the parent to the risk entailed in their decisions on behalf of their child.

#### *Example*

Ms. Miller's father deserted her mother before Ms. Miller was born. Although Ms. Miller's mother tried to provide loving care to her child, Ms. Miller was haunted by longing for her missing father. Throughout her childhood she comforted herself with the fantasy of walking down the street holding the hand of a strong father who looked down at her with adoring eyes. When Ms. Miller was 12, her mother remarried and the stepfather sexually molested Ms. Miller. She left home at age 15 to escape her mother's husband and moved in with her young boyfriend,



and then leaned over and bit Samantha on the leg, leaving red marks. Lucy ran to Jack, crying, "Mommy bit Sam!" Without looking up from what he was doing, Jack said calmly, "Well, bite her back." Wordlessly, Lucy did so, and then cried when Martha responded by laughing and slapping her. Jack did not intervene.

Scenes such as this one were played out over and over again in Martha and Jack's home. Although Martha protested that she loved her children, she treated them with a casual cruelty very similar to the way she was treated by her own mother. She also endangered them by leaving them regularly in her mother's care. Martha's professed love for her children was sincere, but so was her unconscious hatred of them, based on Martha's identification with her own disturbed and sadistic mother. These mixed feelings caused her repeatedly to place her children in harm's way. She seemed blind to these dangers or to her own part in putting her children at risk. When the therapist asked her about her own early childhood, Martha told stories of her mother's cruelty in bloodcurdling detail. Yet her recounting of her early experience was curiously affect free. She repressed her intolerable memory of how it felt to be a child who was hurt and frightened by her mother, but clung fiercely to her unconscious identification with her mother's aggressive behavior, an identification formed in childhood to protect her vulnerable ego from attack by taking on the characteristics of the feared attacker.

### When Trauma Derails the Parents' Ability to Assess Danger

Affective numbing is one of the hallmarks of traumatization. Parents may become so removed from their emotional experience that they fail to notice danger and are unable to protect their children adequately. If the trauma is sufficiently extreme, an inability to identify feelings, or alexithymia, may result (Krystal, 1988).

#### *Example*

Mrs. Ames and her two children, 3-year-old Tony and her newborn daughter, Crystal, were referred by a court-affiliated mediator who became alarmed by the mother's attitude toward her estranged husband. Mrs. Ames had left her husband shortly after Crystal's birth. It was their first separation, although he had been violent with Mrs. Ames since before their marriage. His violence was extreme and nearly lethal. Mrs. Ames finally left him when he refused to take her to the emergency room after Crystal developed a very high fever. Mrs. Ames

explained: "I was still recovering from my C-section; I knew that she needed to see the doctor, but he wouldn't take us. So I walked there, carrying Crystal, with Tony hanging onto my skirt. I actually broke some of the stitches from my incision, and I just knew that I had to leave him." In contrast with this awareness of the need to protect herself and her children, Mrs. Ames sat calmly next to her husband during the mediation process and said that she did not think there would be any more problems because, as she put it, "I know what to do now. I know how not to make him angry." Mrs. Ames accepted the referral for treatment because she was concerned about the troubles that Tony was having at preschool. He had been asked to leave two preschools, and was having trouble at the third one because of aggression against peers. The first assessment session took place in Mrs. Ames's home because she was still having trouble getting around after her C-section. As Mrs. Ames and the therapist sat talking, the door to the apartment flew open and a large man stormed into the room. He threw a toy on the bed, narrowly missing Crystal, and began asking questions and making demands of Mrs. Ames in a loud, angry voice. The therapist presumed that the man was Mrs. Ames's ex-husband and felt frightened that her presence would make him even angrier and that he might attack her and Mrs. Ames. She sat quietly in the corner of the room, desperately wishing that she could disappear into the woodwork. Then, as suddenly as he had come, the man left, slamming the door behind him. Mrs. Ames turned to the therapist and, with no trace of irony in her voice, said, "See how charming he can be?" The therapist was astounded by this question and asked Mrs. Ames if she had been concerned that the therapist's presence would make him more angry. Mrs. Ames looked honestly surprised and said, "Oh, no. He knows all about you. He knows that Tony needs help."

Mrs. Ames had lost her ability to judge dangerous situations. She had told the therapist that her ex-husband was stalking her and that he waited for her outside the house and outside Tony's preschool. He followed her in his car and once had forced her off the road when both children were in the car with her. Mrs. Ames appeared unmoved by these dangers. She did not call the police, did not change her locks, and did not take any steps to protect herself or her children. She allowed the children's father to take both of them with him whenever he asked for them, although Tony always cried and protested when his father came for him. Mrs. Ames told the therapist, "He's never hurt them. I'm sure that he wouldn't hurt them, that's just the way he was with me, and I know how not to make him mad now." This was far from a realistic appraisal of Mr. Ames. He had a long-standing problem with abuse of alcohol and cocaine, had been arrested for fights in bars, and



had assaulted strangers. Mrs. Ames seemed unable to see that his anger was not directed exclusively at her but that it encompassed everything he did.

After the incident at the initial home visit, the therapist called Mrs. Ames on the phone to explain that she could not go to her home again because of the danger that this would entail to the therapist, Mrs. Ames, and the children if the father had free access to the house. Mrs. Ames pleaded with the therapist to continue the home visits on the grounds that it would be nearly impossible for her to come to the clinic on the bus with an active toddler and a newborn. The therapist held her ground, telling Mrs. Ames that she was not willing to put the safety of Mrs. Ames and her children or her own safety at risk. This intervention proved to be a powerful one in recalibrating Mrs. Ames's sense of what was safe and what was dangerous. Mrs. Ames did bring her children for treatment at the clinic in spite of the hardship involved. More important, however, within a month she had changed the locks to her apartment, asked her employer for a transfer to a different location, and applying different preschool for Tony. Later, she took the important additional steps of reporting her ex-husband's stalking to the police and applying to the court for a change in the visitation orders so that Mr. Ames could see the children only in a supervised visitation center.

Because of the profound impact of repeated traumas on her mind and body, Mrs. Ames had no longer been able to recognize warning signals, and she underestimated danger, putting herself and her children at risk for further traumatization. Although she spent a great deal of time and energy providing for her children and loved them deeply, there were ways in which she seemed unable to care for them. She was desperate to regain some sense of control over the violence that she had endured, and her long-standing self-blame and low self-esteem made it easier for her to believe that she had brought the violence upon herself and that she could stop it by the way she behaved. It was too threatening to acknowledge that she had been the victim of cruelty over which she had no control and that it might strike her or her children again. This conflict took place largely outside her conscious awareness and she enacted it in a way that repeatedly put her and her children in danger.

### The Intergenerational Transmission of Traumatic Expectations

As the foregoing cases demonstrate, the emotional, behavioral, and neurophysiological sequelae of childhood trauma are complex and potentially long-lived. Traumatized children experience the failure of their developmentally appropriate expectations that adult caregivers will

appraise danger accurately and take effective action to protect them. Once children experience helplessness in the face of danger, their fear that it will reoccur influences how they respond to future risk situations, leading to the development of traumatic expectations about relationships and about their future well-being (Pynoos, 1997). The child interprets the world in light of these traumatic expectations, anticipating danger and becoming rigidly avoidant of experiences and feelings associated with the trauma. This stance curtails children's spontaneity and interferes with their learning from the full range of experiences that might disconfirm their trauma-based beliefs about danger, safety, trust, and competence in self-protection. The sequelae are deficits in emotional self-regulation, sense of self, ability to rely on others, and attunement to internal emotional states (van der Kolk, 2005).

These expectations are carried into the child's unfolding adulthood. Trauma-based expectations color later relationships, including the experience of parenting. The goal of CPP is to provide, for both parent and child, a model of relationship in which new ways of understanding risk and danger can be talked about and practiced and in which protection becomes possible once again. The next chapter addresses how this can be done.